A Journal Devoted to Healthful Living

HEALTH

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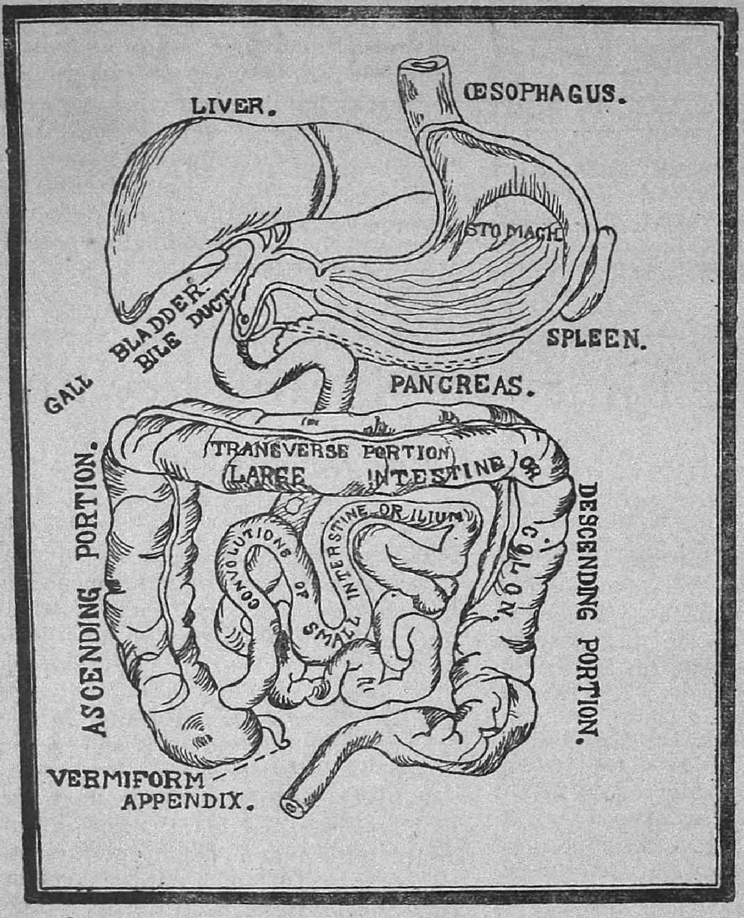
EDITORIAL

The Abuse of Purgatives

PATIENTS often come to the doctor and complain of abdominal discomfort and flatulence. Some have attacks of colicky pain and some others feel easily tired. They have no appetite and are frequently subject to headache. All these symptoms they usually attribute to constipation but, when questioned, they deny having any hard motion. In actual practice, they will have loose motion due to the taking of salt every day. All these symptoms are caused not by constipation, but by the abuse of purgatives.

We often read in advertisements statements, such as " Your whole system is poisoned by constipation and you feel sour, sunken and the world looks punk " and the best way to get " inner cleanliness and buoyant health " is to take a daily dose of a certain purgative salt. Many of us believe in such unauthorised statements and begin to think that we have constipation or hope to get inner cleanliness and better health by following the instructions given in such advertisements. A daily dose of salt upsets the delicate mechanism of the intestines. In the ordinary course of events, there is complete digestion of food in the almost sterile small intestines and the absorption of the products of digestion takes place without bacterial decomposition. But when a purgative is taken, there is unusual stimulation of the intestines, so much so, a good deal of the semi-digested food is hurried through them. By the rapid passage of food in the intestines, the absorption of food and water will be deficient. The colon is filled with fluid fæces, which act as a good culture media for bacteria to grow, and toxic products of decomposition are absorbed into the system. The stools are soft or liquid, and contain mucus due to the irritation of the purgative caused on the mucous membrane of the intestines.

The cure for such a condition is the removal of the cause—stop taking daily dose of salt. But the patients will refuse to do it, because without it they will not have motion. It is true that by the constant action of the laxatives, the intestines have lost their natural action. The solid residue of the food in the colon in a normal person is responsible for the stimulation and contraction of the colon, by which we get the natural propulsion of the stools. But, due to the action of the salts, the colon is always filled with liquid matter, which will not help its action. So, if you stop taking salt one day, there will be no motion. But, without the removal of the cause, you will not get the normal action of the bowels. It is a viscious circle. The treatment is to discontinue the salt, take liquid paraffin or some other non-irritating vegetable mucilage, which is not a purgative, but helps in the passage of the stools. The use of liquid paraffin is slowly withdrawn, as the intestines go back to their natural state and begin to act normally.



Correct knowledge of our digestive mechanism will tend to ward off constipation and thus minimise the use of purgatives.

Another harmful habit among us is to give a daily dose of Castor oil to the new-born infant. This is supposed to keep the bowels free and clean. God has created such a perfect mechanism in the human body, that no external help or oiling is necessary for its working. The bowels of an infant begins to open from the time of its birth and there will be free and regular motions as many times as necessary for its health. Any extraneous matter introduced will do more harm than good. Moreover, Castor oil will bind the bowels so much so, we have to slowly increase its dose to get a free motion. Castor oil will irritate the bowels, upsetting the intestinal mechanisms of digestion and absorption. Many times, serious diarrhœas are started in infants by an overdose of Castor oil. If

the child is constipated, we must look for its causes, such as insufficient food or water intake. There is no necessity to give Castor oil to keep the bowels clean. The intestines must be made to work naturally. This is the only way of keeping the baby healthy and clean.

You may ask: "If we are constipated, what are we to do?" The remedy is not to use purgatives, but to consult a doctor and find out the cause of constipation. Palliative treatment will not help you much. The fault may be in your food. The food may contain too little indigestible residue, and an insufficient quantity of fæces will not stimulate the motor activity of the colon. In such cases, you have to take more vegetables and fruits. In infants, constipation is often due to deficient food. In many cases, the children are not given sufficient quantity of water, especially in summer days, so that the fæces become hard and they become constipated. Due to constitutional diseases or local defects, the colon may not be in proper tone to do its duty. The flabby abdominal muscles, due to want of exercise and sedentary habits, may not act and help in the act of defæcation. Your object must be to find the cause and rectify it, rather than treat the symptoms when the main defect in your system may be doing irreparable harm to your health.—K. L. N.

Hints on Infant Feeding

By N. K. Kurup, L.M.F.,
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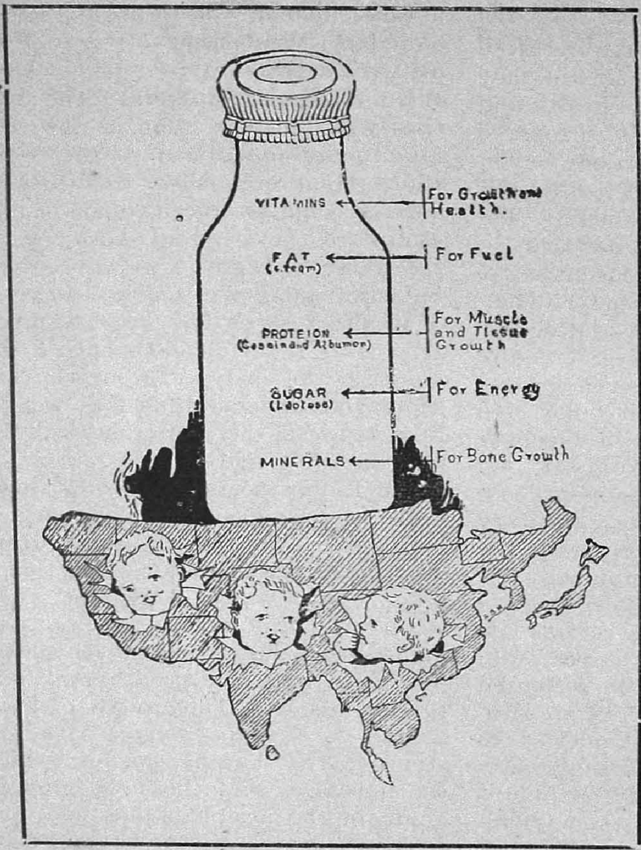
Children, the future citizens of our country, must be very carefully brought up. Infants are weak and helpless and a great burden rests on the shoulders of every mother in bringing them up; in fact, the health of a man depends on the way in which he was brought up in his infant stage.

Thus the important thing to note in the rearing of an infant is its feeding. It is not sufficient to give to the infant any kind of food to satisfy its hunger. It is a matter on which we must bestow our careful attention. A woman once told me that she had given her baby a plantain when it was 12 days old, and as it did not give the child any trouble at that time, she continued to give a fruit every day. This is indeed a great fault.

Many diseases of child-hood such as rickets, scurvy, are the out-come of the feeding which a baby gets. A baby may get on quite well on some particular food for some days and even for months. As the baby may gain weight and may not be attacked by any apparent disease, we may be misled to believe that that particular food is quite suitable to it. But we must bear in mind that "the proof of the pudding is not only in the eating, it is also in the after-results," and in the case of the infant too, this will be the result. As a consequence of the non-nourishing qualities of the food, we find, after a few months, the infant gradually losing in weight and rejecting all sorts of food. It is against this state of things that we must take the greatest precaution.

The food, which an infant gets, must contain enough of fat, sugar and protein and if any of these is lacking, the infant becomes weakened. The best food which contains all these nourishing qualities in proper proportion is *breast-milk* and so, it will be safe to give this to the infant. God has given it for that very pur-

pose. If the mother is well nourished and thus has plenty of milk, the baby can be fed with it till the ninth month up to a year and then it should be gradually weaned. But if the quantity of the mother's milk is less, it is good to give cow's milk or fresh goat's milk. As far as possible, we must avoid all sorts of patent foods. The only best substitute for mother's milk is cow's or goat's milk and



this is the safest food which you can give to the infant. But in administering this also, we must take a little care. A baby of one or two months old would not be able to digest pure cow's milk or goat's milk. So, for an infant of this age, to one part of milk about 3 parts of water also must be added and the mixture must be heated to the boiling point, the water remaining in the milk. Sugar should be added to sweeten the milk. At 3 months—equal parts of water and milk should be given, at 6 months—twice as much milk as diluent, and at 9 months—three times as much milk as diluent. Thus, as the baby grows, the quantity of water should be gradually reduced, and when it attains the 12th month, it can digest simple cow's or goat's milk. Goat's milk, if it is from a clean goat, can be given without boiling as goats are almost immune from tuberculosis.

Another thing to note in infant feeding is the time of each feeding. The baby must be fed at regular intervals. A baby may cry several times a day but it may not be always for milk or for any other food. It may have some particular reasons of its own, and we must find out what those reasons are. Whether it is breast feeding or artificial feeding, each time of the feed must be fixed. This will teach the baby regular habits and all sorts of digestive diseases also can be safely avoided. The infant should be put to the mother's breast from 3 to 4 hours after birth. During the first month, it is fed every two hours during the day and every 4 hours during the night. From the second month, the interval between the meals is gradually increased until at the end of the second month, the infant is fed every $2\frac{1}{2}$ hours, and from the end of the third month up to the end of the ninth month, every three hours and so on, gradually increasing the interval. As to the amounts of the feeds, during the first week, an average infant may

require 1½ ounces; at the second week, 2 ounces; at the end of the sixth week, 2½ ounces; at 3 months, 3 ounces; and from this upto the end of eighthmonth, the food should be at the rate of 1 ounce for every month, *i.e.*, 4 ounces at 4 months, 5 ounces at 5 months and so on. These are some practical points on infant feeding which every mother should know.

THE GLANDS AND BEAUTY

BY DR. L. R. FERNANDEZ, *Trichinopoly*

Of late, a good deal of research and discussion have centred round the endocrine glands, as they play no mean part in the health and longevity of man. No doubt, some of the ductless glands exert an important influence upon the health and beauty of men and women. The functioning of these glands can be compared to the harmonious orchestra of life. If all of them play in harmony, we have a healthy and beautiful person. On the contrary, if one of them gets out of tune, then the beauty and health of that person suffer. In some people, as a result of the over activity of the pituitary gland, big feet and hands or a prominent nose may be formed. If the pituitary gland does not function properly, the result is a short and stumpy body.

If the thymus gland keeps active in adult life, the face retains its youthful and radiant appearance. The shade of the skin is regulated by the adrenal glands which are situated above the two kidneys. In Addison's disease, these adrenal glands undergo degeneration. So the skin is coloured yellowish first, which gradually deepens into a bronze mahogany colour. The texture and other qualities of the skin are also greatly influenced by the endocrines. In well-balanced endocrine activity, one gets a firm, healthy skin. Those in whom the thyroid gland does not function properly, the skin is wrinkled and presents an aged appearance even in the prime of life. The elasticity of the skin is, to a great extent, dependent upon the thyroid gland.

Fine, glistening teeth are the result of balanced endocrine activity. People with healthy thyroid glands have well-formed, pearly teeth. The dentists will tell you that in the case of a great proportion of the teeth which break and decay easily, their defects could be traced to an insufficiency of parathyroid hormone in the body. Those who have very big, protruding teeth have an excess of pituitary secretion : because pituitary controls the development of the bones in the body. Those who are short and undersized, will do well to take twice a day anterior-pituitary pills, morning and night.

Our Indian poets have often sung that "a woman's crowning glory is her hair". And they are right. How dearly every woman loves her long, glossy hair which heightens her beauty. The quality, texture and luxuriance of hair is chiefly controlled by the thyroid, the parathyroid and the sex glands. The growth of hair on the face and private parts is stimulated by the male gonads, while the female ovaries check the growth of hair on the face. Now and then, one comes across with women having some moustache and beard. Such women have shrunken and under-developed ovaries. Usually, after the menopause or climacteric period, hair grows on the face of women, because it is after this period the ovaries undergo degeneration.

There is no denying the fact that the sex glands have paramount influence upon the beauty and health of men and women in all climes and countries.

Cholera and its Prevention

BY

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How people get Cholera.—As cholera is decimating the population of India, every one should be conversant with the causes, the modes of spread and prophylaxis of the disease. It is caused by the ingestion of food and drink contaminated by a kind of germs known as 'comma' bacilli, which are abundantly present in the excreta of the cholera patient. These bacilli may spread through the medium of food, water, flies and other carriers.

1. *Food :—Food stuff* becomes a source of infection when contaminated with cholera bacillus. Milk, being handled by people who do not take sufficient precaution against contamination, plays an important part in the spread of the disease. Adulteration of milk with water from infected reservoirs and raw vegetables and fruits washed with polluted water, contribute much to the spread of the disease. Flies may carry the cholera germ from the infected excreta to the sweetmeats and other foods and the people may get cholera by taking those foods.

2. *Water :*—It is a most conclusive and accepted fact that cholera is mainly a water-borne disease. It is too commonly observed that the people, ignorant as regards the spread of the disease, wash the soiled clothes, bedding and even excreta of cholera patients in the neighbouring pool or tank or stream, which is the source of supply of drinking water to others and thus it spreads the disease to the neighbours, nay to the whole village. Wells, tanks, pools or streams are almost always polluted by bathers, bathing of animals, washing of the infected hands of the attendants, of clothes by washermen and of all sorts of filthy things. They are also polluted when situated near privies and drains by soaking and by surface drains. People get cholera by drinking such polluted water.

3. *Flies :*—Flies, being abundant in the cholera season, are most effective in contaminating food-stuffs. It is a common experience in towns and cities to observe swarms of flies, running from the drains and refuse receptacle of the streets to the sweetmeat shops and invading the food-stuffs there. Flies are covered with minute hairs. They take both human food and excreta. When they take cholera infected excreta, some of the germs therein become entangled in their minute hairs and when they again sit on our food-stuff, they vomit on it and shed those germs from their hairs by shaking their bodies and thus our food-stuffs become infected by flies.

Flies as a cause of infection.

Carriers :—Cholera carriers are those persons who are not showing any manifestation of cholera, rather apparently healthy, but carry cholera vibrios in the alimentary tract, and serve as the agents to carry infection, either during the epidemic or between the epidemics, and thus become responsible to start a new epidemic. They are of two kinds :—

(1) *The convalescent carriers* :—These are persons who themselves had suffered from cholera, are now cured, but are passing virulent vibrios through fæces.

(2) *The contact carriers*—They are persons, who themselves had never suffered from cholera,but through contact with patients either as nurses or otherwise, are harbouring the virulent germs which are passing out through the excreta.

From the above description,it is clear how the spread of cholera by human agencies takes place mainly through carriers and how cholera follows the great routes of human intercourse such as trade route,and with marching of troops, with pilgrims, etc. In trade routes,fairs and holy places, thousands of peoples (some of them carriers) daily gather together under highly insanitary conditions. These carriers, mindless of others' welfare, defæcate according to their own convenience, never thinking of disinfecting them and thus cause havoc to the whole gathering; some of them being infected there, return to their respective localities, develop the disease and thus spread it among their innocent neighbours. From this, it is also clear how carriers, by visiting a place, may spread the disease in that locality, which was previously free from infection.

Attendants :—Attendants of cholera patients may carry bacillus in their hands and clothings. The comma bacilli are so slender that, inspite of repeated washing with plain water, they may stick to the skin folds of hands, especially inside the nails, and thus may help in spreading the disease by infecting food and drink by touching them with their infected hands.

Predisposing causes :— Although comma bacillus is regarded to be the undoubted factor, still this alone may not cause the disease. This is illustrated in the case of carriers who, themselves being healthy, might still be passing virulent bacteria with their fæces. This shows that there must be some other factors which, when combined with the bacilli, cause the disease. What these factors are, we do not know definitely. Probably such factors as mental worry, underfeeding, any disorder,especially of the alimentary tract producing diarrhœa, congestion of internal organs as caused by sudden chill,producing constriction of capillaries of the external surface of the body, may predispose to an attack.

1. *Saline and other purgatives* :—During an epidemic of cholera, saline and other purgatives, which lead to congestive or catarrhal condition of the alimentary canal,thereby lowering the vitality of the tissues, make the people more susceptible to infection.

2. *Fasting* :—Cholera germs die very rapidly in an acid medium. The normal secretion of gastric juice, which is acidic, serves, therefore, as a natural protection against the infection. The reverse—that is fasting—thus excites a favourable condition for the infection.

3. *Visiting those parts where cholera is prevalent* :—People from healthy areas coming to or passing through a cholera-infected district are greatly liable to infection.

4. *Over-eating* :—Over-eating in cholera season greatly predisposes to an attack. People making feasts and thus deranging the alimentary system in epidemic times, are more liable to

an attack of cholera than those who are temperate in their meals.

5. *Debilitating conditions* :—People who are debilitated by disease, thus having low tissue resistance, are more prone to an attack than those who are enjoying good health.

6. *Environment* :—People living in unhygienic conditions—both as regards surroundings, habits, food and mode of living—are the greatest sufferers. Poor and low class people suffer most.

7. *Local conditions* :—Low-lying, damp districts, specially those on river side, overcrowding and insanitary conditions, lead to its prevalence.

How people may avoid cholera.—People can avoid cholera by following general and personal prophylaxis.

1. *General prophylaxis* :—(*a*) Wherever any case of cholera has occurred in the neighbourhood, at once inform the municipal authorities or Sanitary Inspectors to take proper steps and guard the sources of water supply, *e.g.*, tanks, wells, pools, etc., from contamination. Persons from the same house or from the neighbourhood of the infected area should not be allowed to wash utensils or *'lotas'* in the uninfected tanks or wells. In order to attain the same end, it is better to appoint a man solely to draw water from the tank with only one bucket, and none else should be allowed to dip anything therein. Washing of the infected utensils and clothings should not be allowed even in the vicinity of the tank.

(*b*) In case of any suspicion about pollution of the well, it should be disinfected with potassium permanganate or better, by chlorinated lime in the following way—about 2 oz. of the permanganate is placed in a bucket and dipped into the well to fill the latter, it is then drawn up, and the water is poured into the well, leaving the undissolved crystals behind. It is again dipped,and the process repeated until the whole is dissolved. The water should remain pink for 24 hours. The well is kept covered and the water not used for 24 hours, although no harm will result even if the water is taken at once. Tanks should be disinfected with bleaching powder.

(*c*) Disinfection of the contaminated house :—Walls, furniture and floor, specially the latter, must be thoroughly washed and disinfected with disinfectant lotion (hydrag. perchlor 1 in 1000 with dilute hydrochloric acid one drachm to the pint).

(*d*) All drains and privies must be disinfected with Carbolic lotion, Phenyle or Cyllin daily. All accumulations of rubbish should be removed and general cleanliness must be preserved through promulgation and strict enforcement of compulsory sanitary laws and regulations. The people must also be sufficiently educated so as to understand and appreciate the necessity and utility of such drastic preventive action.

(*e*) Thoroughly disinfect all the discharges of the cholera patient *e.g.*, soiled clothing, utensils, etc., either by Carbolic lotion (1 in 20) or Cyllin (1 in 100) or better, by fire. Disinfect the soiled clothings and beddings by the same disinfecting lotion as used for the walls.

(*f*) Spread the knowledge of the causes and modes of propagation of the disease among the public in general.

2. *Personal prophylaxis*:—(*a*) Avoid the predisposing causes as far as possible *i.e.*, avoid purgatives, especially saline ; avoid all errors of diet. Keep the stomach always full so as to have acid secretion in it, which is our natural resistance against infection. Never attend a cholera case in an empty stomach. Do not take anything that may cause indigestion, *i.e.*, unripe and over-ripe fruits or decomposing foods. Treat early any tendency to derangement of the stomach or bowels *i.e.*, dyspepsia or more specially diarrhœa.

(*b*) Universal inoculation of the people of the affected area : Cholera

inoculation is proving to be of the greatest service in checking the outbreak of cholera just like pouring water on a fire, whenever it is combined with disinfection of the soiled clothes and evacuations of cholera patients by means of bleaching powder solution and sterilization of suspected water supplies with bleaching powder.

(*c*) Segregation and isolation of the patient and, if possible, also of the nurses and attendants.

(*d*) Administration of Tomb's Essential Oil which consists of spirit of æther, 30 minims, oil of cloves, oil of cajuput and oil of juniper, 5 minims of each and aromatic sulphuric acid, 15 minims. The dose is one dram in one-half ounce of water, every half hour, until vomiting and purging cease. For contacts one dram in water is given once or twice daily for one or two days. This mixture possesses considerable advantage over cholera vaccine as a prophylactic from an administrative point of view, for vaccination is costly and unpopular, whereas the mixture is cheap. It is worse than useless in the later stages of the disease.

(*e*) Protection of the articles of food and drink from being contaminated by flies, and prevention of adulteration of the same by contaminated water and other substances.

(*f*) Sterilisation of the articles of food and drink by boiling and keeping them well covered to prevent subsequent contamination.

(*g*) Avoid all foods and drinks from railway or steamer stations. Avoid ready-made sweets from the bazaar. All food must be freshly cooked and taken while hot. All fruits should be taken after washing with warm water; water for drinking and washing purposes must be boiled and then cooled before use. Simple filtration is not safe, as the pores of the filter favour accumulation of the germs. Plenty of lime-juice and 'dahi' should be taken, or dilute sulphuric acid, 15 drops with an ounce of water, may be taken occasionally.

HEALTH IS WEALTH

BY GANA NATH ROY, M.B., *Deputy Physician,*
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"HEALTH is Wealth" is indeed an unquestionable proverb amongst all, but today wealth is defined only in terms of rupees, annas and pies and not in health, and too much wealth or too little wealth has been proved to be unhealthy, because too much wealth cripples a man and too little wealth kills a man.

We hear from old people that the people of a previous generation were healthy and happy, and it is a truth. We will not fail to realise that they were comparatively healthier in body and in mind irrespective of their wealth. The simple reason may be that they tried to follow the natural laws of health. They ate unadulterated food and drank wholesome milk within their means. The old and the young took some sort of suitable exercise, with ample rest as a routine measure and lived plainly with high thoughts in their mind.

But today, we are living a mechanised life. The present day is a day of speed, economy and admitted imitations which only kill our nerves in trying to keep pace with the ever-changing time.

The electrical automobiles and the high speed amidst dangerous traffic, added to the stress and strain of our lives in these days of modernised civilization, are telling upon the nerves very much, in a slow and continuous way, though these nerves are the

sources of strength, energy, and vitaltiy as is evident from the ancient "Charaka and Sushruta", the "Unani" and the Greek systems of medicine, down to the present-day system of the Western medicine.

It is indeed a paradox to think that, in spite of the help of scientific developments in our daily life and the ultra modern means of living an up-to-date life, we are gradually becoming unhealthy and neurasthenic, probably for the hidden causes of impulsive and irritative nerves with want of proper healthy nutrition, exercise and rest.

Psychoneurosis, Diabetes, Blood pressure and lastly Tuberculosis, whose toll is increasing from day to day in the cities. The greater percentage of villagers suffer from the mosquito bites directly, whereas the same percentage of city-dwellers suffer from the effects of shattered nerves in an indirect and continuous manner. The balance of health and disease is maintained equally both in the villages, and cities with their respective advantages and disadvantages.

Now, the readily acceptable factors responsible for the down-hill progress

Physical Culture Training involving vigorous open air exercises for both sexes, is very essential for the upkeep of perfect health.
Picture shows lady students of Chikistak Samuha School, Bombay, undergoing Rifle-Drill

The fact that people living in villages are healthier than the people living in cities, may be true regarding the few fundamental factors of a healthy life. The difference in the modes of living of a villager and a city dweller is great indeed in the civilised eye, but both of them are living healthy as well as unhealthy lives. True, that the villages are known to be infested with malaria and the village-men are malaria-stricken, but certainly, they suffer less from the greater evils like

of health, leading to various gross changes of normal physiology, with their concurrent pathological manifestations regarding health, may be ascribed to the following factors.

(*a*) Want of easily assimilable, proximate and necessary principles of food, causing under-developed, ill-nourished children, who are prone to suffer from bad liver and rickets. These children, when they grow up, suffer from gastric troubles and later on,

show sometimes, signs of consumption and other diseases.

(*b*) Want of well-balanced dietary and physical exercise with injudicious quantities of food-intake, will help people to fall victims to Diabetes, Blood pressure and other metabolic diseases.

(*c*) Want of fresh air, proper ventilation, coupled with the above factors, will create lung diseases, especially tuberculosis, which is running so rampant in almost every tenth or twelfth families in every province of India.

(*d*) Want of natural restful sleep may be responsible for all nervous derangements. Insomnia and neuresthenia are the usual sequences of chronically irritated nerves.

After the enumeration of the factors leading to bad health, which in turn causes various diseases, I will suggest some factors which may help us to build a healthy body and a healthy mind, irrespective of different grades of purse. They are :—

(1) Knowledge of the personal hygiene, which deals with care of the mouth, ear, nose, throat and skin, will save us from the respective affections, because these are the primary sources of infection in our body.

(2) Knowledge of the domestic hygiene will teach us how to keep our dwelling places clean and airy. Cleanliness of the kitchen and lavatory is are essential for fighting the invasion of disease germs into our body, and it is not a very costly affair.

(3) Knowledge of the hygienic conditions of the surroundings and of hygienic measures for preventing the spread of diseases which, in all cases, do not depend on the individual alone, are important.

(4) Diet must be light and nutritious, which varies with the individual factor, but the most important factors are (*a*) well mastication of food. (*b*) avoidance of unnecessary hurry while eating. (*c*) rest of at least 10 to 15 minutes after a meal, (*d*) regular hours of meals.

(5) Fasting once or twice a month to give rest to the divine engine which certainly requires it like all other human machinery, with the overhauling business, which, in the case of the stomach, is washing by purgatives etc.

(6) Graduated exercise in fresh air and rest according to the different ages.

(7) The value of exposing oneself to the tropical sun, in the morning and evening, under the open sky, is certainly great.

(8) Restful sleep—to give perfect rest to the fatigued nerves and brain —is indeed unquestionable.

(9) Lastly, moral hygiene is of paramount importance in these days.

In conclusion, I may say that lost wealth and all other worldly matters may be recovered, but lost health can never be recovered. Health is wealth and this wealth is divine, This divinity is concealed in this mortal frame, which is to be adorned as the temples, churches and masjids. Love of health begets love of God.

Cleanliness and Disease

However good our food may be, it always leaves waste matter behind. This is like the ash of a fire and must be got rid of without delay to prevent disease. This means attention to the bowels, to bathing, and the drinking of water between meals. It is also important to clean the mouth and teeth after eating and to keep the throat, nose, and ears as free from germs as possible.

—*Good Health. (U.S.A.)*

CIVIL DEFENCE AND CIVIC WELFARE

By

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THE bombs used in modern air raids are capable of destroying or seriously affecting citizens, city structures and the supply of essential services, the three constituents of the civic organism. This is obvious from recent events.

The high explosive bomb can kill and injure people even by a distant explosion. A direct hit or near explosion can shatter any of our city structures. It can penetrate deep into the ground and shatter the water and drainage pipes, electric and telephone cables railway lines, and roads etc. The incendiary bomb, though smaller, can burn down a city by spreading conflagration.

It is becoming evident that citizens can be ensured full protection only if we can erect massive structures, otherwise called bomb proof shelters, designed and constructed with care. These are very expensive and their erection will be impracticable unless they are kept in use even in times of peace. A dual purpose shelter will solve the question of finance and economy. Modern cities, however, by their layout require too many than is absolutely essential, if our citizens should have ready access to them. To economise in the number of shelters, it is possible only if business houses and residences surround dual purpose air raid shelters. An altered layout zoning and planning of residential suburbs become necessary to make protection possible to all. Initial outlay is of course a big problem but against this we must consider what it would cost for evacuation and medical aid. No financial outlay can be considered too big when it is a question of preserving life and morale of the people.

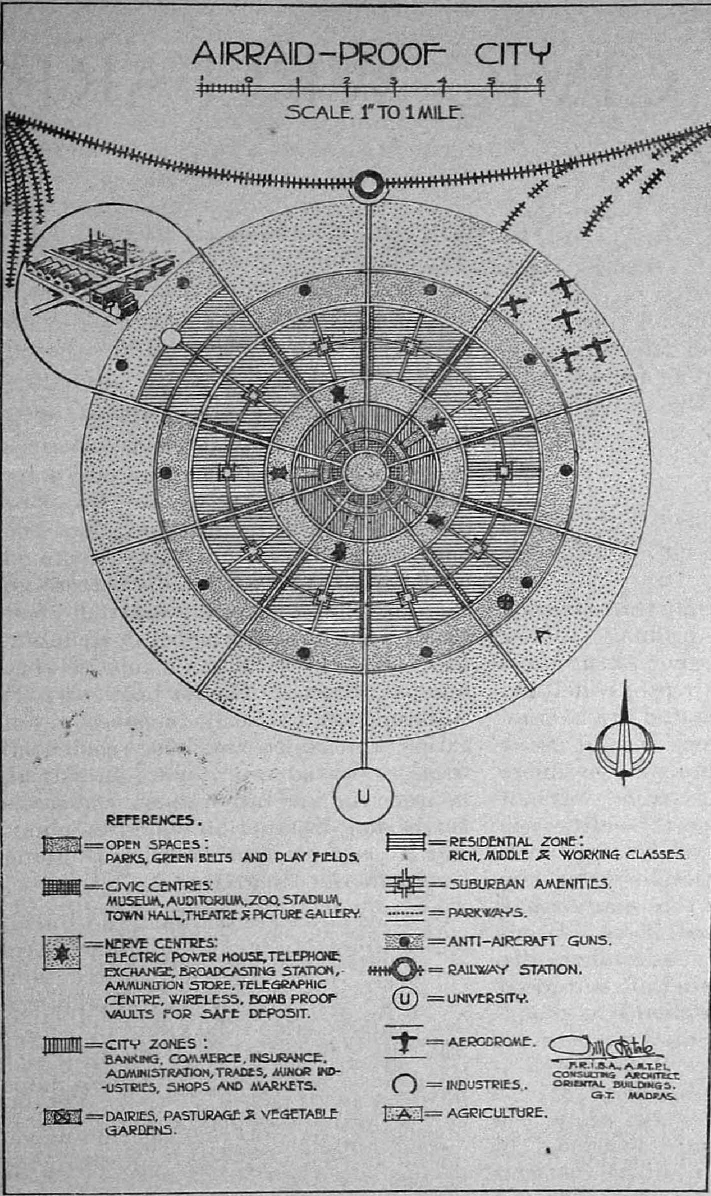
Regarding structures, it is idle to recommend that every building should be bomb proof. But, by avoiding congestion and by adopting an open layout, we could minimise the chances of direct hits, and by careful designing and construction, the consequences of blast can be easily rectified and the edifices made fit for use. Framed structures can resist bombs better and if each building is at least 25 feet away from its neighbour, destruction of structures by bombs would be very expensive if not almost negligible. If buildings are properly classified and if cities are zoned and the residential area separated from the industrial, commercial and other zones, the scope for casual destruction would be eliminated and destruction by bombing would become inadvisable.

Unless cities are planned and zoned, we cannot prevent indiscriminate bombing and casual destruction. Unless we have space around buldings, we cannot reduce the effect of vibration upon foundations, and until our roads are made wide, we cannot hope to keep them free from debris blocking them and preventing the movement of fire fighting and salvage parties.

To resist the high explosive bomb therefore, our buildings must be suitably designed, our roads must be wide, there must be space around

each buliding and different kinds of activities must be separated.

The kilo incendiary bomb can be prevented from penetrating into a building by a flat reinforced concrete roof five inches thick. Fire breaks are also absolutely essential to prevent fires from spreading and to confine destruction to the building actually attacked. Every building in the city must be detached from the rest, with sufficient space around, to prevent fire brands flying and spreading fire. Adequate water supply should also be ensured and to every part of the city to fight the fire.



Modern methods of production and distribution of essential services are extremely vulnerable to air attack. The underground system and drainage get shattered when the high explosive bomb hits the street. Even in times of peace, the supply of essential services has been found inadequate, and when the stress is greater in times of war, they fail and destruction and dislocation caused by bombs break the resistance of the people. Dislocation by a few bombs will be made impossible only if the sources of production and methods of distribution are decentralised and every unit or group of houses is rendered self-sufficient and self-reliant as far as possible. A single storeyed detached residence, with a little garden, is essential to obtain

optimum welfare for the human species. Such a system will admirably resist air raids.

In commercial and business zones of a prosperous city, water and drainage mains, electric and telephone cables, etc., could be run below the ground in a tube subway, constructed of reinforced concrete and kept about 20 feet below the surface. The top surface could be of reinforced concrete, made thick enough to serve as a detonating slab to prevent bombs getting in. " Nerve centres " could be housed in buildings of special design and construction, located in parks or gardens and camouflaged very well. Gardens and pastures, surrounding a city, can obviate "digging for victory" in times of war.

To resist air attacks, we must have, bomb-proof shelters for all the people, buildings and structures, that would minimise the destruction by air raids, and services the supply of which is immune to dislocation. We also require a suitable contingent of fighter aircraft, anti-aircraft guns, balloon barrages and other ground defence equipments. These are needed to force the raiders to attack the targets from a great distance and in great hurry—the two factors which render destruction very expensive. When these four features are carefully combined, we would obtain a city which can protect the citizens and resist attack from the air to such an extent that would make air raids not worth while. This would undermine the enemy's incentive to adopt air raids as his method of agression.

How will such a city be? There will be a large central park about half a mile in diameter around which civic buildings, stately edifices, temples and the like would find location.

A green belt would surround these to separate them from the city zones lying in the surrounding area—commerce, administration, trade, banking, insurance, etc., each zone separated from the other by parks, open spaces, gardens and roads. Buildings in these zones would be framed ones and not more than six storeyed and located around garages which could be used as bomb proof shelters in emergency. A green belt of gardens and parks 500 to 1000 yards wide would encircle this area and separate it from the surrounding residential suburbs. The residential zones would be in the form of townships and villages, self-sufficient and self-reliant in matters of water supply and drainage and lighting. Community centres, capable of conversion into bomb resisting accommodation for those residing around, would form the foci of each group of residences.

Pasturage and vegetable gardens will encircle the residential belt. In this pasturage, will be housed cattle and live stock, catering for the dietary, transport and other needs of the city. Anti-air craft gun positions would be in this area to check the raiders. The road encircling this pasturage would help to connect the anti-air craft gun positions, and to defend the boundary better. Ammunition stores, telephone exchanges, broadcasting stations, electric power houses, etc., would be housed in carefully designed structures and located in the green belt. The trees and vegetation and parks would make identification of these very difficult. Aerodromes and railway stations are large and cannot be concealed in gardens and they, therefore, lie outside the city and away from residences. For the same reason, factories are located outside the city. Tanks, ponds, wells, and bathing pools would be all over the city to provide dependable and copious supply of water for fire fighting, decontamination and normal peace time purposes. The entire city will be surrounded by a belt of agricultural land, growing cereals and pulses. And it would be superfluous to " dig for victory " in times of war.

When we critically examine the *potentialities of aircraft bombs*, the method of air attacks, the method of destruction and damage that a city like *this will permit and the rapidity* and facility with which it can recover from air attack, it will become evident *that the destruction of city* structures will be very expensive, dislocation of the supply of essential services will be nearly *impossible*, and citizens would be absolutely safe. These may not make air attacks impossible but would make *raids not* worthwhile and inadvisable. Herein lies the chance for cities and civilization to survive the air menace.

Cities like *these would obviate the* enormous expenditure now needed by modern cities to minimise the dangerous consequences of air attacks. English towns cost *the exchequer 360* thousand pounds a day for partial evacuation and A. R. P. organisation.

A city planned like the model suggested above *would also eliminate the* large sums spent on disease and curative measures in times of peace. In a city *like this, people would obtain* a balanced diet, abundant sunshine and air, plenty of scope for recreation and freedom from excessive *dust*, smoke and noise, harmful to health. Above all, tranquillity and peace in the "home" of the citizen will be assured. The requirements of security and health admirably coincide and if air raids succeed in obtaining for urban inhabitants cities like these, they would be a boon in disguise.

1 -MAR

THE HOT WEATHER MENACE TO PUBLIC HEALTH IN INDIA

By

K. S. AGARWALA, M.SC., LL.B.

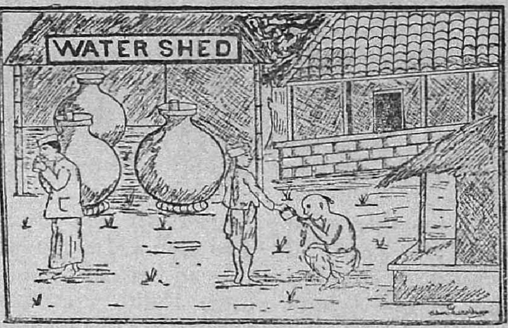
Shivaji Nagar, Poona.

DURING the hot weather in India, air temperatures reach considerably high values and the intense heat that prevails, causes much discomfort and hardship and is a serious menace to public health. Excessive heat is indeed a disadvantage from the point of view of health; unwholesome environments such as the sweltering heat, the scorching sun, the violent hot wind and the parched land during the hot weather, not only have a debilitating effect on human health in general but also result in marked *deterioration* of efficiency at work. While sun-shine and sun-light are essential for development and health, scorching sun likesun-baking is definitely injurious.

An idea of the degree of heat experienced during the hot weather in India, is obtained by examining the maximum air temperature in shade. In March and April, the highest air temperatures are about 100°F and 100°F to 110°F respectively, and occur in the Deccan and in the south of the Central Provinces and Gujerat; while in May, northern and north-western parts of India experience *the greatest* heat with air temperatures reaching 120°F and over. Jacobabad, which enjoys the unenviable reputation of being the hottest spot in India, has registered maximum shade temperature of 126°F. We may, however, take comfort from the fact that the highest temperature so far recorded of Jacobabad, is still 10° lower than the highest temperature *for the surface of the globe* which is 136°F. registered at Azizia, Tripoli, on September 13th, 1922. It

may also be mentioned here that the epoch of maximum temperature generally occurs between 1 P.M. and 4 P.M. in India.

The onset of the hot weather usually results in the outbreak of certain diseases such as skin troubles, boils, eye-sore etc. The commonest skin trouble is the prickly heat from which tender and sensitive skin suffers most. Human-beings also suffer from attacks of heat-stroke and sun-stroke in the hot weather. All these ailments are caused or influenced by the high temperatures and the hot wind which victimize people working out of doors. Mention may also be made of certain other ailments and disorders such as measles, whooping cough, diarrhœa, soar-throat etc., which occur frequently during summer; these being of an infectious nature, often occur in epidemic forms and prove very distressing and dangerous to children.



Erection of water-sheds in every village is a great desideratum for the pedestrian way-farer and would considerably allay the hot-weather menace.

Apart from the normal hot weather conditions, a feature of the hot weather in India is the occasional incidence of severe heat waves during which the affected parts of the country experience abnormally high temperatures and are subjected to blazing heat. Heat waves are frequent in northwest India, the United Provinces, central parts of the country and the Deccan. The occurrence of heat-waves causes considerable suffering to human beings through severe attacks of heat-stroke and sun-stroke; these attacks very often prove fatal to their victims and result in an increase in the death rate. Heat waves are sometimes so severe that persons faint and fall dead on account of the intense heat.

A matter, which is of importance from the health point of view, is that ordinary articles of food such as milk, meat, fruits etc., get spoiled too soon during the hot season in this country unless special means to preserve them are employed. The use of spoiled articles as food thus becomes more than ordinarily possible during the hot season. Foodstuffs can be preserved during the hot weather by means of refrigerators and cold storage plants, but these methods are costly and can, therefore, hardly be expected to be employed by the bulk of the population in this country.

Unfortunately, the people most exposed to the summer heat are the poor people in the rural areas—the tillers of the soil—who have to labour in the fields under the scorching sun. Apart from this, these millions of people in the villages live in mud huts which can hardly be said to afford any adequate protection to the inmates against any kind of weather. Again, they are the people who share the largest amount of hardship on account of another difficulty viz., shortage of water, which frequently occurs in the rural areas during the hot season on account of the drying-up of wells, tanks, ponds etc. While a very small proportion of the population can afford to go to hill stations or outside India in order to avoid the excessive heat of the Indian summer, the vast majority of the people have to stay and work under the unwholesome conditions prevailing in the plains during the hot weather.

To avoid the worst effects of the terrible heat that prevails in the plains during the hot weather, a popular practice followed in northern India is to put heavy curtains made of *Khaskhas* on the doors and windows and to water them at fixed intervals of time in order to preserve a cool atmosphere inside the houses. In the province of Sind, a special type of wind ventilator is in vogue and this is fixed at the roof of the house; this kind of ventilator makes it possible for the occupants to take advantage of the prevailing wind without being victimised by it. A simple way by which the temperature of the air inside dwelling houses during daytime can be kept down to a small extent during the hot weather is to leave the doors and windows open during nights and in the mornings when the air temperature is comparatively low and to keep them closed for the rest of the day when the temperature of the outside air is high. The situation of the dwelling houses themselves is of great importance from the point of view of protection from the summer heat. Houses in the plains, where extreme heat is experienced during summer, ought to face a direction so as to avoid the worst effects of the summer sun and the prevailing hot wind and need not therefore always face the roads. It is true that the general design of the houses has to suit the requirements of all seasons of the year as a whole but it can surely be such that the occupants are not victimised by the hot sun and wind during summer. What is needed is well-thought-out and economical system of house-planning which would suit the local needs and conditions and also be within the financial reach of those whom it is meant to serve.

Mention must also be made of the fan which is an instrument employed to produce currents of air to cool the face and the body and thus to mitigate the effect of heat. The practice of using the ordinary hand-fan made of straw, leaves, feathers, card-board, etc., during the hot weather has been in vogue since ancient times and is very common in this couutry even now a days. The simple hand fan is, however, gradually being replaced by the electricity-driven fan in areas where electric power is available. The most upto-date and efficient method adopted to reduce the temperature inside buildings to a comfortable level is air-conditioning. Air conditioning is gradully becoming popular in India and there is a growing demand for it now in big cities like Bombay, Calcutta and Delhi. It may, however, be mentioned that the great majority of the people in this country—even those living in urban areas can hardly be expected to avail themselves of the use of air-conditioning units so long as the cost and maintenance charges of such units do not come down to a popular lower level.

American Medical Association Accepts Carrier-Room Coolers.

A nation-wide survey conducted by the Medical Economics Magazine, seeking opinions of physicians who make use of air conditioning, produced interesting results. The survey revealed 72% of these physicians believe hay fever patients will enjoy relief through air conditioning, 63% believe it has therapeutic value for asthma, 31% believe it helpful in senus conditions and 21% for pneumonia.

Carrier Air Conditioning reduces the concentration of plant pollens in air to a point where the person susceptible to hay fever can usually obtain relief or even completo freedom from allergic attacks.

Carrier-Room Coolers equipped with the pollen-type filter have been accepted by the Council of Physical Therapy of the American Medical Association. In accepting the units, the Association authorized publication of its official report and use of the American Medical Association seal.

1 MAR 1941

THREAD, PIN OR SEAT WORMS

By

Dr. JOSEPH S. KHAN, L.C.P.S., (Bom.),

Officer-in-charge,

Shantipur Leper Hospital, Dhamtari, C.P.

These are commonly called thread, pin or seat-worms, and are mainly found in children. They are generally found in the upper part of the large intestines, specially cæcum, where they exist in large numbers. Occasionally they are found in the bladder and genital organs.

The worms are small, white in colour. The female is $\frac{1}{4}$—$\frac{1}{2}$ inch in length and the male, about half the size of the female. The posterior end of the male is curved spirally and is blunt, with a specule at the end, while that of the female is pointed, and straight, and its vaginal opening is situated near its anterior extremity. Although the normal position is in the upper part of the large intestines, the adult female comes down to the anus at night and deposits eggs at the natal folds.

Life-History.—Thread-worms develop from ova in about three weeks. Ova are passed in the stool and the host is reinfected by the mouth, before new generation could develop. When the worms burrow in the mucosa of the rectum, they cause itching and hence the child scratches the area, with the result that ova get into the nails and naturally the child sucks its fingers into its mouth and gets reinfected. So the mode of infection is self or auto infection. Water and food, contaminated with ova, are the commonest sources of infection.

Symptoms.— Great irritation and itching — particularly during the night— at the anal orifice is produced by the thread worms. Patients become restless and irritable and sleep is often disturbed. There may be anæmia and loss of appetite.

Treatment. — Treatment should be directed towards the removal of the worms from the intestines and the rectum.

℞ Santonine	...		
Calomel āā	...	gr. i.	
S. Bicarb	...	gr. ii.	Mft. Pulv.

This is given at bed time, followed by Magsulph one teaspoonful in the morning. For older children and adults, the dose may be proportionately increased. The above course may be repeated weekly till the child is free from thread worms.

To remove the worms from the rectum, cold solutions of salt and water may be given per rectum and retained as long as possible. A cup of water may be used each time. Infusion of quassia is another good method. An ounce of quassia chips to a pint of water should be used. This is to be repeated till the child is free from the disease. For itching, Ung. Gallæ Cun Opio, is effective. Carbolated Boric Ointment is also a good remedy. Every care should be taken to keep the child clean and to cut his nails small. Boiled water should be used and clean habits should be insisted on from the very beginning of the child's life.

To prevent auto reinfection is another problem that is to be solved. Children scratch and then suck their fingers; therefore, a child with thread worms should have its hand tied up in gloves, so that the fingers may not reach the anus (Ghosh). If this is not possible, I think, a triangular bandage or napkin, applied to the child's anal and perineal region, will prevent the child from scratching.

[Library stamp] 4 MAR 1941

SLEEP AND REST

BY B. B. TIPNIS,
Madan Zapa, Baroda.

WORK and rest are the facets of the same coin. One without the other is a dud coin and has no value in our routine life. A man may collect such coins for some time to find himself only a bankrupt in the end. Every working machine has its quota of wear and tear depending upon the vigour and length of work performed by it. And what is our human organism but a most delicate machine? Just think of heart, for instance. The little thing has to throb on ceaselessly for scores of years, without the least interference and has to maintain the whole edifice of our life with our tall ambitions, broad ideas, and undying hopes. To it, apparently rest is unknown, but in fact, between every throb it takes rest.

REPOSE "

Our worried brain and tired muscles acquire rest when we get a sound, dreamless sleep. There must be complete relaxation of all muscles, and the brain must be clear of all the worries of the day. This feature is not quite so easy as it looks. Many a time, we sleep for as good as 7 to 8 hours and yet wake up with a tired, dull feeling. This means the period of rest was not perfect. Learn to relax your limbs, acquire the habit of switching off the anxieties from your mind and then you synchronize rest with sleep. Apart from physical ailments, lack of sound sleep is, in most cases, due to an inability to ward off worries from the mind. Take the spirit of Omar Khayam's poem :—

> Unborn tomorrow and dead yesterday,
> Why fret about them, if today be sweet ?

Act up to this advice, jettison all anxieties, cares and worries of tomorrow, and then step into your bed to enjoy the blissful rest. Look at a child who so easily wafts into a dreamland without the least effort. He does it because he is void of all worries. Our shoulders are burdened with various responsibilities and so we require some practice to vacate the brain for rest purposes.

"Rest is vital for health. Many minor ailments that puzzle us at times are due to lack of rest and relaxation. The amount of rest and sleep we take has an important influence on how long we live".—*Good Health* (*U.S.A.*)

The Care of the Sick Child

THE sick child should have his own room. In general, the room should be bright and cheerful, unless contra-indicated by the type of illness. The patient's bed should be so placed that the child has a full view of the room with the best possible light, but with no glare in his eyes.

Fresh air regulation should be governed by the temperature of the outer air, the season, wind direction, and the situation of the room. Whenever possible, the window should be opened at both top and bottom. The room should be thoroughly aired several times each day. This may be done while the child is asleep or lying down and well covered. The temperature of the room should be regulated at about 68°F., if possible. This will often seem a little cool to one sitting in the room without a wrap. If the room is too cool, the nurse or mother should be warmly dressed in order to avoid chilling and resultant respiratory infection.

The patient, also, must be protected from chilling. Even during the summer months, the sick child should not be left entirely without covering. This is particularly true as regards infants. A sudden change in temperature will often lead to chilling and thence to further complications.

A child with much fever will not tolerate a regular diet. A child with a temperature elevation of 102 F. or above must be given a light diet.

It is preferable that the child be given small amounts of food at regular and more frequent intervals. A three hour schedule is best adapted to the acute stage of the illness, because one or more light feeding is possible during the day than on the four hour schedule. Nourishment and medications are given on the same schedule so that the child may be given time to rest.

If the illness is a prolonged one *e.g.*, typhoid fever, the diet may be gradually increased so that the patient eventually receives a high caloric diet. Even in these cases the addition of food must be slow and the appearance of distention, diarrhœa or vomiting is a signal for immediate return to the light diet. After a reasonable wait the gradual increase may again be attempted.

In the case of the acutely ill small infant, all solid food should be discontinued and the formula diluted to one-half strength. Prolonged illness is treated on the same principle as noted above.

It should be stressed that the sick child must have a stool each morning. A mild laxative will practically always be sufficient to bring this about, but if the laxative is not effective in the morning an enema will be necessary.

Every sick child should be provided with an invalid table upon which the patient may play with his toys and games. This is especially useful during the convalescent stage. For such play, the child's back must be adequately supported either by means of backrest or by several pillows.

The convalescent child requires recreation which will provide amusement without unnecessary taxation of the patient's strength. Older children are not quite so difficult to please, but the run-about child, from age two to six years, requires constant amusement.—*The Medical World, Dec. '40.*

Diet and High Blood Pressure

HIGH blood pressure may be due to a number of causes. Dr. Bertrand P. Allison, writing in the *Vegetarian Messenger and Health Review,* says that usually several factors are involved, except in certain types of kidney or heart disease. Diet will affect blood pressure conditions indirectly by weight reduction in the obese and relief of cardiac or kidney embarrassment. The elasticity of the arteries has an important bearing on pressure. One authority declares that the greater part of cardiac energy is expended not in driving the blood through the vessels but in distending the walls of the arteries. This elasticity is lost through inflammatory thickening and the deposit of lime in the walls. Dr. Allison is convinced that a lacto-vegetarian diet prevents the development of such conditions for he has found so many elderly adherents to regimen with quite soft arteries.

In treating high blood pressure, Dr. Allison has forbidden all flesh foods, tea, coffee, alcohol and medicines. Almost invariably the patients express satisfaction with their condition after a month or two. The pressure may not begin to sink at once but it generally does later. Again some foods have a stimulant action on the circulation and thus raise the pressure. Flesh foods are the principal offenders, meat extracts being perhaps the worst of all.

Some authorities believe that toxemias are the fundamental causes of high blood pressure. These may be due to the teeth, tonsils or appendix, but far more important is intestinal poisoning. This arises principally from unwholesome foods, such as meats, fish, and game, although toxins may be produced by imperfect digestion of wholesome foods. But the chief poisons arise from the action of putrefactive organisms upon the residue of flesh foods in the colon. On a vegetarian diet the dangers of autointoxication are far less, even if stasis is not overcome, although it usually is.—*H. M. S.*

Protecting the Health of the Child: Parents' Responsibility

EMOTIONAL and mental habits are of inestimable importance to the physical health. Children are great imitators, reflecting to a high degree the conduct of the father and mother. If a boy or girl sees his family display temper, he cannot be blamed for trying the same thing. If the adults around him are even tempered, calm, courteous, fair minded, kind and honest, he is likely to develop many of the same qualities. It is well to remember the following general rules in this connection:

1. Try to be what you want your child to be.

2. Expect the right thing of your child, and praise him when he does it.

3. Help the child to become independent of the help of others, physically, mentally and morally. Do not baby him. Allow the child to make as many decisions as he can without an undue emotional strain. Really important decisions should not fall on the shoulders of a child unprepared for them by experience.

4. As far as is humanly possible, always keep promises to a child.

5. Do not show fear in the presence of a child nor suggest fears to him.

6. Try to correct the child when your disposition is normal. Losing one's temper lessens the effectiveness of the punishment.

7. Respect the child's plans, opinions and privacy. Remember that he is a person with interests and certain rights of his own.

8. Help the child to acquire the habit of liking and getting along with people.—*Hygiea.*

Anxiety and Melancholia

1. Anxiety by itself is not a dangerous symptom with regard to the risk of suicide.

2. Anxiety associated with depression is not essentially dangerous, but care is called for, in that such cases should be seen from time to time in order to detect the earliest signs of melancholia if that should develop. The addition of hypochondriacal symptoms appearing for the first time is often a prelude to a melancholic attack.

3. The appearance of even one of the following, calls for constant observation:

(a) Retardation of thought.

(b) Hypochondriacal ideas.

(c) Self-accusations.

(d) Loss of hope and of normal fears for the future.

(e) Appearance of unseasoned fears.

(f) Idea that his illness is deleterious to others, so that he would be better out of the way.

4. The sudden disappearance of anxiety and depression is ominous. It may indicate a suicidal resolve.

5. A sudden increase in anxiety calls for a careful physical examination.—*Clinical Journal.*

Sterilization of the Tooth Brush

HAVE a kettle of water on the gas or other heater, and before brushing the teeth, pour generously of the water when boiling, over the brush and after brushing the teeth pour boiling water again over the brush before putting it away, preferably in some closed container; this treatment of the brush with boiling water will not injure it.—*King George's Medical College Magazine, Nov. 1940.*

A Natural Preservative in Honey

THE remarkable keeping qualities of honey have long remained a mystery but according to the *British Medical Journal*, German scientists have recently discovered that the fermentation of honey is prevented by a substance produced by the secreting cells of the bee which destroy the bacteria which cause putrefaction and fermentation.

These investigators showed that honey is preserved by this newly discovered property and not by either its saccharin or acid properties.—*Good Health.*

Diet of Mother and Fœtal Size.

IT is probably true that the consensus of opinion of obstetricians is that the bulk of the baby can be limited. This is done by restricting the sugars and starches and some restriction of fluid during the last trimester of pregnancy. Care should be exercised that the actual requirements of a balanced diet are not disturbed. The restriction of food does not affect the length of the baby or the size of its head. These are probably more largely determined by heredity. The weight and size of the baby are important, because delivery is often complicated by bulk and excessive size of the bony structure as well as by a large head.—*The General Practitioner.*

Prickly Heat.

A MOST unpleasant and troublesome hot weather complaint is that known as prickly heat. That is, however, not often met with in England; it requires much higher temperatures and is associated with profuse sweating. Infants who are too warmly clad may develop a similar eruption—the aptly termed "heat rash" or "red gum." It is an acute inflammatory reaction occurring in or around the swea ducts immediately below the horny layer of the skin and is characterised clinically by numerous small red papules or vesicles or an erythematous base which prick and itch intolerably. The hottest areas of the body are most affected viz., around the waist, the trunk and the upper parts of the arms and legs. Patients subject to this complaint should avoid excessive fluids, especially hot drinks; alcohol is obviously contra-indicated; clothing should be light and porous. Locally, it is better to avoid greasy applications.—*Medical Bulletin.*

Music While You Work.

MUSIC while you work is sometimes regarded as a trivial concession to the social needs of men of labour. Investigations show that *it is much more important than* this and that the output of work is very greatly increased when music is introduced. Women appear to be more susceptible than men and in one factory it was found that the work of hat making was speeded up by 25 per cent., while the spirits of the workers became much more happy and buoyant than had previously been the case. In a Kentish fruit canning factory output was increased by 30 per cent., and the demand for gramophones and loud-speakers was never so brisk as it is to-day.—*Medical World.*

Fasting

OCCASIONAL short fasts, and the replacement of complete meals by fruits and milk will cause notable improvement in bodily health, because in the absence of proteins, carbohydrates, fats and cholesterol, the iodine-reservoirs can funbtion actively. The clarity of thought just before a meal when the iodine in the brain can circulate freely, unbound by fats, is a common experience.

Animals in nature, when ill, abstain from food, and retire to some secluded spot until they are improved. Their saliva is rich in bacteriolytic iodine, for their defensive glands have been activated and fever has come after injury or infection. So their habit of licking sores has a sound basis. Chemical analysis of the saliva, tears, perspiration and urine of menstruating women show their very high iodine content. It is well known that the glands of internal secretion that are iodine rich are activated by infections.—*The Medical World.*

What not to do in a sick-room

(1) Do not wear an inconvenient dress—but have something simple.

(2) Do not take your food in the sick-room.

(3) Do not be afraid of fresh air.

(4) Do not whisper in a sick-room.

(5) Do not walk about in a stealthy way or on tip-toe, and always have soft soled shoes on, nothing that creaks.

(6) Do not discuss about the health of the patient before his face—be hopeful and cheerful.

(7) Do not give any medicine without first looking at the label to make perfectly sure that it is all right.

(8) Do not act upon your own judgment in defiance of the doctor's orders.

(9) Do not be alone with a delirious patient.

(10) Do not be fussy in your ways.

(11) Do not have any noisy occupations in the sick-room.

(12) Do not neglect the personal cleanliness of the patient.—*Indian Medical Record.*

Dhobi Itch

IT is called Dhobi Itch because the washerman is supposed to convey the infection. This infection affects the groins and other areas which remain moist—the factor which is common in the hot weather of the tropics. Usually there is intensive itching to relieve which the patient scratches. In the act of scratching, it grows to the other parts of the body. Acid Salicylic and Benzoic ointment can be used for its treatment.—*Medical Bulletin.*

Sunlight for Development and Health.

THE modern cult of sunbaking in the nude is abnormal and harmful. Unsuspected diseases, such as pulmonary tuberculosis, may be made worse by sunbathing; hæmorrhage and pleurisy frequently follow. Philostratis, in A.D. 200, said :—

" The fools go sunbathing with every kind of sunshine and without any discrimination. Especially youth should not be lazy and bake, but should use their young vital energy and move and exercise. "

Physical exercise in a minimum of loose clothing in the open air in the sunshine is ideal. Controlled sun browning is a sign of health—sunburning is pathological,—*General Practitioner.*

Milk inimical to Body Parasites

BESIDES being host to numerous kinds of bacteria, the human body harbours many sorts of parasites. These include, according to Dr. James A. Tobey about twenty-five species of protozoa, eighty-five species of worms, and an uncertain number of arthropods, a group including the insects, spiders and crustaceans. Some of these invaders are harmless but others are dangerous. The malarial parasite dwells in the blood-stream while others, including the dysentery amœba, inhabit the intestinal tract. Some gain entry through polluted water or food; others, like malaria and filiarsis, are imbedded in the skin by insect-bites, while hookworm gets in directly through the skin.

Some of these parasites cause a well-defined characteristic disease, while others give rise to symptoms resembling those of typhoid fever, cholera and even appendicitis. Diarrhœa, colic and anæmia may be resultants. Many of the parasites thrive especially on starch in the food while proteins are not favoured by them. Casein, the chief protein of milk, is particularly obnoxious to these invaders. Some of them can be eliminated by liberal intake of casein. Round worm has been eradicated by a diet rich in milk, and hookworm patients are improved by feeding them with milk. Milk is also recommended as the most appropriate food in amœbic dysentery. Its use in feeding poultry and other farm animals tends to reduce or even to end, parasitic infestation.

Dr. Tobey cites these facts as additional evidence of the utility of milk in the diet.—*Good Health.*

Causes of Obesity

THE inequality between the food that we take in and the energy that we put out is the main cause for the accumution of excess of fat. Sometimes diseases of the central nervous system also add their share to obesity. Not only fat, but also water is retained in the body. This joint effect of the accumulation of fat and water may be detrimental to health and vitality of the body. The treatment of obesity is based upon the reversal of the physiological process which leads to the deposition of fat. Various methods have been devised to establish a balance between the output of enery and the intake of food. They are both interesting and instructive.

Nobody likes to have a fat body which is considered to disfigure their youthful figures. Women especially hate it most decidedly. It has ever been their bane. So from time immemorial, women have used all sorts of ways to get rid of excess of fat. Drugs, chemicals and diets have been devised to get rid of fat, with no benefit.

Some of the secretions of the internal glands in the body are found to produce obesity. They have a tendency to go wrong at the time the change of life is occurring. Hence we see people growing fat with age.

The Value of Fruits

FRUITS are the most delicious and delightful of all other foods supplied by Nature. Not only do they attract the eye, but they are easily digestible. They can be taken both in sickness and in health, in infancy as well as in old age.

Fruits contain water, sugar, acids, a little protein and organic salts. Water is in great abundance and is of utmost purity. Sugar is most easily digested and its amount varies. Usually the colour of the fruit determines the amount of sugar. Fruit sugar supplies heat and energy in the body and so when we are exhausted it is advisable to eat fruits so that we may soon recover from the fatigue.

The acids of the fruits give them delightful and appetising flavour. These are organic acids and hence are readily digested by the human body. They stimulate the appetite and promote the flow of the digestive juices. No germs of disease can live in the presence of fruit acid. As fruits contain little protein, they produce no effect in the body.

The salts of fruits are utilised in tissue building. Children, afflicted by rickets or bone softening, are to be treated with fruit diet; fruits such as grapes, oranges, lemons, etc., contain a great amount of lime salts which they give freely to the body and feed the bones.

Lack of iron in the blood or anæmia is cured by fruit diet. Iron in fruits is perfectly adapted to the needs of the body. Among the fruits which contain a good amount of iron are plums, cherries, strawberries, etc. A fruit diet is of great value in doing away with obesity. The acids of fruit juices greatly help in quenching the abnormal thirst.—*The Indian Temperance News & White Ribbon.*

Food for Thought

EXPERIMENTS made by Benedict and numerous others have shown that little if any more energy is consumed by the body when the brain is working very actively than when it is idle. The brain seems to require little energy in doing its work. Brain workers often make the mistake of supposing they need much food and hearty food because of their intense mental application. The reverse is the case. Science has determined that the food requirement of the brain worker is little more than that of the idler.

A method employed in Tartary for catching eagles to train for hunting purposes has a practical lesson for heavy eaters. Pebbles are smeared with blood and placed in reach of the birds. They soon discover them and, mistaking the blood-stained pebbles for blood clots, swallow them with great avidity. When they have thus loaded themselves up with stones, the hunter rushes out from his hiding place. The eagles run along the ground and spread their wings, but they cannot soar; they cannot rise from the ground. With their stomachs weighted down with stones, they are handicapped and are easily captured.

This is exactly the situation with thousands of brain workers, business men, professional men and women, teachers, preachers, lawyers, students. They are handicapped by the heavy loads in their stomachs. When they wish to soar mentally or morally, they find themselves chained to earth. They cannot rise. A biologic diet, a carefully regulated food intake, will break the fetters and remove the mental handicap. Many noted brain workers have discovered this important fact. Isaac Newton lived on a spare diet of bread and water when working out the great mathematical problems that confirmed his discoveries. Milton, Cowper, even Byron at times, appreciated the value of the simple, frugal diet as an aid to intellectual activity. Said James Fields of Dickens, "I have rarely seen a man eat and drink less."—*Good Health (U. S. A.)*

Sanitation stops Summer Typhoid

INDIVIDUALS, communities and public health agencies need to unite in precautionary measures to reduce the prevalence of fever cases.

The following factors are of importance in relation to prevention of spread of Typhoid fever: (1) conveniences such as water and soap, for the washing of hands; (2) instruction of food handlers in matters of personal hygiene; (3) fly-proof toilets; (4) elimination of flies and insanitary conditions; (5) adequate screening of dairy farms, milk plants, stores, homes; (6) pasteurization of milk supplies; (7) immunization with typhoid vaccine.

Vaccination against typhoid fever is advised in particular for vacationists who are subject to varied water, milk and food supplies during their travels.—G.H.F.—*National Health Review.*

Whooping Cough

IT is an acute infectious malady, characterised by paroxysmal attacks of coughing, followed by a long noisy inspiration, the 'whoop'.

Children below 10 years are mostly attacked. It occurs in epidemics, generally in the winter and spring months. The infection generally takes place directly from person to person. The causative organism is a short bacillus—the bacillus pertussis and is present in the respiratory mucous membrane in the early stages.

1. *Catarrhal Stage* :—This stage shows symptoms of ordinary cold *i e.*, running from the nose and eyes, slight fever and a dry bronchial cough. This stage lasts about a week.

2. *Paroxysmal stage or stage of Whoop* :—Now the spasms of the coughs come on. Each paroxysm being with a series of 15 to 20 forcible short coughs of increasing intensity, between which no inspiratory effort is made. This is followed by a long inspiration with the characteristic sound of "Whoop". The sound is caused by the sudden rush of air through the half-closed glottis. During the coughing spell the child gets blue in the face and the whoop is often followed by vomiting—an important feature. Large quantities of stringy mucus are often expectorated at the end of the paroxysm. Face may remain swollen for a few days due to the strain of the cough and subconjunctival hæmorrhage (bleeding beneath conjunctiva) and epistaxis may occur.

3. *The constitutional symptoms* vary, some patients showing no symptoms in between the attacks. There is however slight fever during the catarrhal stage. Blood shows a leucocytosis with a relative increase in small mononuclears.

Diagnosis is extremely easy where the whoop is present. When it is absent, suspicion should still be aroused when a persistent cough shows lung signs.

General Treatment :—Rest in bed, fresh air day and night and liquid food are the measures to be adopted. If vomiting is severe a small amount of food immediately after a spasm is advised. The greatest care should be exercised during convalescence to prevent broncho-pneumonia.—DR. J. C. DE in *Health and Happiness.*

Wheat—A remarkably well-balanced Food

LIKE all cereals, wheat is body-building and energy-giving. In addition to a high percentage of energy-producing carbo-hydrate, it has good yields of protein, an essential part of food found in all living tissues and compounded with nitrogenous elements. Proteins are to the body what bricks are to the brick-layer. In the digestive processes proteins are selected for tissue building and cell replenishment.

But wheat has much more than proteins. In its complete form, it is a remarkably well-balanced food. Consider its virtues. It has the compound Vitamin B and Vitamin E. An average analysis of the rest of its make-up is as follows:

Water	...	13.40	per cent
Protein	...	13.60	,,
Fat	...	1.00	,,
Carbohydrates	...	69.10	,,
Calcium	...	0.75	per 1,000 parts water
Sodium	...	0.50	,,
Magnesium	...	2.80	,,
Iron ...	...	0.30	,,
Phosphorus	...	10.90	,,
Sulphur	...	0.09	,,
Silicon	...	0.46	,,

Every one of wheat's minerals is essential to health. The lack of them is responsible for many illnesses. The fats and vitamins are mostly in the germ; the mineral salts are largely in the husk. Each grain of wheat offers, therefore, a rare combination of commodities and qualities essential to human health. There are few things in the complete range of food to compare with it for all-round utility.—*Health for All.*

An ideal Aviator

A very definite type of young man is cut out for aviation just as for any other line of endeavour. It is the inherited qualities of the mind, tempered by education and experience, with its sum total of studied foresight and precaution, that determines the true flying type.—*Medical Record.*

Correspondence

Messrs. Volkart Brothers, Madras, write to us the following for publication :—

'With reference to the article under the heading of "Too much cooling may be a menace" which appeared on page 167 of the July 1940 issue of *Health,* we would like to say that the A. M. A. Journal's statement was made in reply to a query regarding proper living room temperatures for summer and winter, particularly in cases where aged persons are concerned.

Regarding winter conditions, the Journal states that room temperatures much above 70°F. are generally considered undesirable in cold weather, because they aggravate the effects of temperature contrasts when persons pass from overheated rooms to the cold outside air.

Because of a reduced metabolic rate and lack of resilience of the vasomotor system, many elderly persons require temperatures in the upper seventies, but an attempt should be made to reduce the comfortable temperature level by suitably insulating exposed walls, and by employment of tight-fitting storm sashes where such measures are justified.

It follows that these remarks hardly refer to this country and room coolers which are generally advertised nowadays never cool down a room more than 10 to 12 degrees below the outside temperature, i.e., they produce a very pleasant and in no way harmful atmosphere'